

This listing of the claims will replace all prior versions and listings of the claims in the application.

Listing of the Claims:

Claims 1-37 (previously canceled)

38. (Original) A method for cooling cheese blocks comprising:

placing a plurality of cheese blocks sequentially into different sections of a tank, wherein the sections contain cheese blocks that have been in the tank for different amounts of time; and

flowing liquid through the tank from a section that contains cheese blocks that have been in the tank substantially the greatest amount of time toward a section that contains cheese blocks that have been in the tank substantially the least amount of time.

39. (Original) The method as recited in claim 38 wherein placing a plurality of cheese blocks sequentially into different sections of a tank comprises sequentially directing cheese blocks from an inlet flume into each one of a plurality cooling cells, wherein the cheese blocks in each cooling cell at a given point in time have been in the tank different amounts of time than the cheese blocks in other cooling cells.

40. (Previously Amended) The method as recited in claim 39 wherein flowing liquid through the tank comprises:

introducing chilled liquid into a given cooling cell that contains cheese blocks which have been in the tank for substantially the greatest amount of time;

transferring liquid from the given cooling cell into the cooling cell contains cheese blocks which have been in the tank for the next greatest amount of time; and

continuing to transfer liquid successively between each additional pair of cooling cells, wherein the liquid is transferred into one cell of the pair that contains cheese blocks which have been in the tank for a lesser amount of time than the other cell of the pair.

41. (Previously Amended) The method as recited in claim 38 further comprising removing liquid from the section containing cheese blocks that have been in the tank substantially the least amount of time.

42. (Previously Added) A method for cooling cheese blocks in a tank that is divided by walls into a plurality of cooling cells, said method comprising:

placing a plurality of cheese blocks into different ones of the plurality of cooling cells, wherein the plurality of cooling cells contain cheese blocks at different temperatures;

introducing a liquid into a selected one of the plurality of cooling cells; and

transferring the liquid from the selected one of the plurality of cooling cells to another cooling cell and then sequentially from cooling cell to cooling cell.

43. (Previously Added) The method as recited in claim 42 wherein introducing a liquid introduces the liquid into the cooling cell that contains cheese blocks having the lowest temperature.

44. (Previously Added) The method as recited in claim 42 wherein transferring the liquid transfers the liquid sequentially from a cooling cell containing cheese blocks that are colder than cheese blocks in a cooling cell into which the liquid is entering.

45. (Previously Added) The method as recited in claim 42 further comprising chilling the liquid prior to introduction into the tank.

46. (Currently Amended) An apparatus for cooling cheese blocks, said apparatus comprising:

a tank to contain a liquid and the cheese blocks, the tank being divided into a plurality of cooling cells separated from each other by walls, and wherein each cooling cell has a fluid inlet;

a mechanism which places a plurality of cheese blocks sequentially into different ones of the plurality of cooling cells;

a fluid circulation system is connected to each fluid inlet to introduce the liquid into a selected one of the plurality of cooling cells; and

a mechanism which transfers the liquid from cooling cell to cooling cell in a predefined sequence.

47. (Previously Added) The apparatus as recited in claim 46 wherein the mechanism comprises a plurality of inter-cell pumps each connected to the tank to transfer the liquid between a different pair of the plurality of cooling cells.

48. (Previously Added) The apparatus as recited in claim 46 wherein the fluid circulation system comprises a heat exchanger for cooling the liquid.

49. (Previously Added) The apparatus as recited in claim 48 wherein the fluid circulation system comprises a distribution conduit which receives liquid that has been cooled by the heat exchanger; and a plurality of valves connecting the distribution conduit to the plurality of cooling cells, wherein opening one of the plurality of valves introduces the liquid into the selected one of the plurality of cooling cells.